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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/786,864

02/24/2004

Hiroshi Miyanari

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NEW YORK, NY 10036

EXAMINER

KHAN, USMAN A

ART UNIT

PAPER NUMBER

2622

MAIL DATE

DELIVERY MODE

10/20/2009

PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No. 10/786,864	Applicant(s) MIYANARI ET AL.	
	Examiner USMAN KHAN	Art Unit 2622	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 22 September 2009.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 12 and 13 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 12 and 13 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 24 February 2004 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

1. A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on 09/22/2009 has been entered.

Response to Arguments

2. Applicant's argument filed on 09/22/2009 with respect to claims 12 - 13 have been considered but are not persuasive.

Please refer to the following office action, which clearly sets forth the reasons for non-persuasiveness.

Regarding claims 12 - 13, Applicant argues that the constructions recited in applicant's amended independent claims 12 and 13 are not taught or suggested by the cited art of record. In particular, the cited Shiomi reference does not teach or suggest a storage unit configured to store a plurality of one-dimensional correction data in a horizontal direction in accordance with a plurality of ISO sensitivity settings. The Shiomi reference also does not teach or suggest reading the one-dimensional correction data in the horizontal direction from the storage unit in accordance with the ISO sensitivity set by the setting unit and generating two-dimensional correction data by expanding the read one-dimensional correction data in a vertical direction. Shiomi discloses an

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imaging system that includes image pickup element 5 with a two- dimensional pixel array, a first multiplying circuit 18 for multiplying one-dimensional correction data in the /Jason Chan/

Supervisory Patent Examiner, Art Unit 2622horizontal direction, a second multiplying circuit 19 for multiplying Thus, Shiomi teaches a system which stores beforehand one or more horizontal one- dimensional correction data and one or more vertical one-dimensional data. Shiomi also teaches that the horizontal and vertical one-dimensional correction data are determined based on the properties of the image sensor, so that a first one-dimensional correction data is used for correcting an area of the image sensor with high sensitivity and another one-dimensional horizontal and/or vertical correction data is used for correcting an area with low sensitivity. However, Shiomi is completely silent as to ISO sensitivity settings of the image sensing apparatus and as to storing a plurality of one-dimensional correction data in a horizontal direction in accordance with a plurality of ISO sensitivity settings. Moreover, there is no mention anywhere in Shiomi of generating two-dimensional correction data by expanding in a vertical direction horizontal one-dimensional read out from the storage unit. Rather, in Shiomi, both the horizontal one-dimensional correction data and the vertical one-dimensional correction data are pre-stored in the memory, and correction of image data is performed by applying the horizontal one-dimensional correction data in the horizontal direction and thereafter applying the vertical horizontal one-dimensional correction data in the vertical direction. Accordingly, applicant's amended independent claims 12 and 13, each of which recites a storage unit configured to store a plurality of

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one-dimensional correction data in a horizontal direction in accordance with a plurality of ISO sensitivity settings, reading the one-dimensional correction data in the horizontal direction from the storage unit in accordance with the ISO sensitivity set by the setting unit and generating the two-dimensional correction data by expanding the read one-dimensional correction data in the vertical direction

However, the examiner notes that SHIOMI teaches in paragraph 0046 performing correction by sensitiveness of an image sensor (i.e. ISO). Also, SHIOMI teaches in paragraphs 0029 – 0040, 0068 – 0086, 0104, 0113, and 0122 reading correction data in the horizontal direction and also expanding in the vertical direction.

3. Regarding the 35 U.S.C. 112, first paragraph rejection provided in the previous office action. Applicant has pointed to the specification to clarify the subject matter hence the 35 U.S.C. 112, first paragraph rejection provided in the previous office action is withdrawn.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

4. Claims 12 - 13 are rejected under 35 U.S.C. 102(b) as being anticipated by SHIOMI (JP2001016509A).

Regarding **claim 12**, SHIOMI teaches an image sensing apparatus (paragraphs 0029 – 0030) comprising:

a plurality of pixels arrayed in a horizontal and a vertical direction (paragraphs 0029 – 0030; pixels arranged in two dimensions);

a storage unit configured to store a plurality of one-dimensional correction data in a horizontal direction (paragraphs 0029 – 0040, 0068 – 0086, 0104, 0113, and 0122) in accordance with a plurality of **ISO** sensitivity settings (paragraph 0046; image sensitivity);

a setting unit configured to set ISO sensitivity (paragraph 0046; image sensitivity);

a calculating unit configured to generate two-dimensional correction data by expanding the one-dimensional correction data in a vertical direction, which is stored in the storage unit (paragraphs 0029 – 0040, 0068 – 0086, 0104, 0113, and 0122; correcting in the horizontal and vertical direction using correction/amendment data);

a correction unit configured to correct image data outputted from the plurality of pixels by using the two-dimensional correction data generated by the calculating unit; and (paragraphs 0029 – 0040, 0068 – 0086, 0104, 0113, and 0122; correcting in the horizontal and vertical direction using correction/amendment data).

a control unit configured to read the one-dimensional correction data in the horizontal direction from the storage unit in accordance with the ISO sensitivity set by

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the setting unit, and control the calculating unit so as to generate the two-dimensional correction data by expanding the read one- dimensional correction data in the vertical direction (paragraphs 0029 – 0040, 0046, 0068 – 0086, 0104, 0113, and 0122).

Regarding **claim 13**, SHIOMI teaches a control method for an image sensing apparatus (paragraphs 0029 – 0030) which comprises a plurality of pixels arrayed in a horizontal and a vertical direction (paragraphs 0029 – 0030; pixels arranged in two dimensions), a storage unit configured to store a plurality of one-dimensional correction data in a horizontal direction in accordance with a plurality of ISO sensitivity settings (paragraphs 0029 – 0040, 0068 – 0086, 0104, 0113, and 0122), and a setting unit configured to set ISO sensitivity (paragraphs 0046, 0063 – 0076; sensitivity), the method comprising:

reading the one-dimensional correction data in a horizontal direction from the storage unit in accordance with the ISO sensitivity set by the setting unit (paragraphs 0029 – 0040, 0068 – 0086, 0104, 0113, and 0122);

generating two-dimensional correction data by expanding the read one-dimensional correction data in a vertical direction (paragraphs 0029 – 0040, 0068 – 0086, 0104, 0113, and 0122);

correcting image data outputted from the plurality of pixels by using the generated two-dimensional correction data (paragraphs 0029 – 0040, 0068 – 0086, 0104, 0113, and 0122).

Conclusion

5. Any inquiry concerning this communication or earlier communications from the examiner should be directed to USMAN KHAN whose telephone number is (571)270-1131. The examiner can normally be reached on Mon-Fri 6:45-3:15.

6. If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Jason Chan can be reached on (571) 272-3022. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Usman Khan/
Usman Khan
10/14/2009
Patent Examiner

/Jason Chan/

Supervisory Patent Examiner, Art Unit 2622